

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) and (b) No, Sir.

(e) The Government has set up a number of research institutions under the various ministries and departments which promote and support research work for development and utilization of state of the art modern technology in the agriculture, industry and services sectors. As a result, the country has been able to complete in the international market in some areas of agriculture and industry.

### **Performance in Research in Science and Technology**

†2997. SHRI MANGANI LAL MANDAL: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that the required progress has not been made in research in the field of science and technology from the point of view of the world level competition level competition alongwith the requirements of the country and the challenges of future;

(b) whether it is a fact that not even 20 per cent of the funds provided for the research for the research in science and technology during the financial year 2005-06, has not been utilized; and

(c) if so, Government's view in this regard?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) No, Sir. Considering the limited resources and facilities available for research, the Indian scientists have indeed performed well during the last five decades. The world-level competition in scientific research is measured by research papers published in journals. The number of research papers published by scientists in India has been slowly increasing in absolute terms over the past twenty five years (from 14983 in 1980 to 19448 in 2005). While its share as percentage of world publications declined from 2.9% in 1980 to 1.9% in 2005, it has increased from 1.5% to 1.9% in the last 10 years. In terms of citations also, which is considered to be a standard indicator of quality, India's performance has increased from 0.76 in 1993-97 to 0.86 in 1997- 2001. Its share to top 1 % highly cited publication increased from 0.32 in 1993-97 to 0.54 in 1997- 2001. Even the number of

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†Original notice of the question was received in Hindi.

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RAJYA SABHA

US patents granted to Indian inventors has been increasing—from 88 in 2000-01 to 229 in 2004-05. We, however, need to progress even faster to catch up with other countries like China and South Korea which have recorded faster growth in recent times.

Indian science has also played invaluable role in solving national problems and meeting national needs. The Green and the White Revolution have converted India into a food surplus country. Our capabilities in the areas of space and nuclear research and well-known examples of what Indian science has achieved. More recently, the Indian scientists and technologists have demonstrated their capabilities in several areas of emerging technologies such as the production of the first genetically engineered Hepatitis-B Vaccine, the indigenous development of small civilian aircrafts, ocean-based desalination plants for fresh drinking water, development of new drugs for diseases of importance to this country, such as tuberculosis, etc. These achievements indeed place India on a platform of confidence as we enter the 21st century. We foresee major developments through public-private partnerships resulting in increased allocation of resources of scientific research and thus to increased contribution to the national economy.

(b) No, Sir. The Central Scientific Departments, during 2005-06 and 2006-07, have utilized over 80% of funds provided for research in science and technology.

(c) Does not arise.

#### **Opening of District Science Centres in U.P.**

†2998. SHRI UDAY PRATAP SINGH: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the number of districts in which District Science Centres have been opened till year 2006 in Uttar Pradesh; and

(b) by when such centres will be opened in the districts wherein such Centre has not been established till date?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) and (b) The information is being collected and will be laid on the Table of the House.

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†Original notice of the question was received in Hindi.